Name:

at1110paper_practice_test (v20)

1. Expand the following expression into standard form.

$$(7x + 8)(4x + 3)$$

$28x^2 + 21x + 32x + 24$

$28x^2 + 53x + 24$

2. Solve the equation.

$$(9x - 5)(7x - 6) = 0$$

$x = \frac{5}{9}$ $\quad$ $x = \frac{6}{7}$

3. Expand the following expression into standard form.

$$(9x + 7)(9x - 7)$$

$81x^2 - 63x + 63x - 49$

$81x^2 - 49$

4. Expand the following expression into standard form.

$$(2x + 9)^2$$

$4x^2 + 18x + 18x + 81$

$4x^2 + 36x + 81$

5. Factor the expression.

$$x^2 + 5x + 6$$

$$(x+3)(x+2)$$

6. Factor the expression.

$$25x^2 - 64$$

$$(5x+8)(5x-8)$$

7. Solve the equation with factoring by grouping.

$$20x^2 - 15x - 8x + 6 \;=\; 0$$

$$(5x-2)(4x-3) = 0$$

$$x = \frac{2}{5} \qquad x = \frac{3}{4}$$

8. Solve the equation.

$$9x^2 - 33x - 66 \;=\; 4x^2 + 5x - 3$$

$$5x^2 - 38x - 63 = 0$$

$$(5x+7)(x-9) = 0$$

$$x = \frac{-7}{5} \qquad x = 9$$